



Mobile Telesystems, Inc.

# MTI's *Black Widow*

## KT-2848

### 1.2 Meter Collapsible Flyaway Ku-Band Transmit & Receive Antenna

**Product Overview:**

MTI, a leader in mobile technology, offers transportable VSAT solutions. The *Black Widow* is a portable 1.2 meter collapsible flyaway Ku-Band antenna. It's unique design, made of Silicon impregnated polyester aluminum thread, allows you to set up and dismantle quick and easy. The antenna is extremely lightweight, portable and durable.

The *Black Widow* consists of feed, OMT filter, tripod and a suitcase with wheels and can be configured in any location — in any way you like.

The *Black Widow* has been granted license by FCC, (File #: SES-MOD-20050609-00714, Callsign: E030219) as fixed satellite service in US. The antenna has also been case approved to be used on **Eutelsat** satellites using the earth station code D-335.

**VSAT Applications:**

- Data Transmissions
- Video Teleconferencing
- Broadcast Events
- Remote Networking
- Telephone and Voice Traffic
- Site Surveys
- Emergency Communications
- Surveillance

**MTI's *Black Widow* Advantages:**

- Lightweight
- Deployable
- Quick Setup
- Truly Collapsible



MTI's *Black Widow*  
(Model KT-2848).



MTI's *Black Widow*  
(Model KT-2848) with case.

MTI-KT2848\_BlackWidow (5/05)

**Visit Our Website:**  
[www.mti-usa.com](http://www.mti-usa.com)

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<i>Ku-Band Specifications</i>	TRANSMIT	RECEIVE
Frequency	13.75 - 14.5 GHz	10.7 - 12.75 GHz
<b>Feed - 2 Port Orthogonal</b>		
Polarity	Linear	Linear
Return Loss	20 dB typ	18 dB typ
Insertion Loss	0.2 dB typ	0.4 dB typ
Tx/Rx Isolation	80 dB	40 dB
Feed Interface	WR75	WR75
<b>Antenna</b>		
Efficiency	72%	78%
Midband Gain	43.6 dBi	42.4 dBi
Noise Temperature	N/A	50K @ 10°EL 45K @ 30°EL
3 dB Beamwidth (Midband)	1.21°	1.37°
Cross Polarization on Axis	42 dB	42 dB
Within 1 dB Beamwidth	30 dB	30 dB
G/T @ 20° Elevation	N/A	21.2 dB/°K
85° LNA @ Midband (Clear Sky)		
First SideLobe Level (+/- 2 dB)	-26 dB	-28 dB
Transmit & Receive SideLobe Level >100% below	29-25 log 2 -3.5 32.25 log 2 -10	100° < 2 ≤ 20° 20° < 2 ≤ 26.3° 26.3° < 2 ≤ 48° 48° < 2
<b>Mechanical Data</b>		
Antenna Optics	Single Offset	
Mount Type	Tripod With Elevation over Azimuth	
Elevation Adjustment	0° to 90° Coarse & Fine Adjustment	
Azimuth Adjustment	±15°	
Weight (Antenna & Tripod)	47 lbs.	
Weight (Antenna & Tripod & Case)	86 lbs.	
<b>Environmental Specifications</b>		
Wind Load (With Ballast Anchors)	Operational: Survival (gusts):	30 mph/48 kmh 50 mph/80 kmh
Temperature	Operational: Survival:	-30° to 130°F -50° to 150°F
Rain	Operational:	0.5"/h    1.3 cm/h

All product specifications are subject to change without notice.

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